

REMARKS

Pursuant to 37 C.F.R. §1.173(c), Applicant provides the following statement of the status as of the date of the present amendment of all patent claims and of all added claims.

STATUS OF PATENT CLAIMS:

Claim 1	CANCELED
Claim 2	CANCELED
Claim 3	CANCELED
Claim 4	CANCELED
Claim 5	PENDING
Claim 6	PENDING
Claim 7	PENDING
Claim 8	PENDING
Claim 9	PENDING
Claim 10	PENDING
Claim 11	PENDING
Claim 12	PENDING
Claim 13	PENDING
Claim 14	PENDING
Claim 15	PENDING
Claim 16	PENDING
Claim 17	PENDING
Claim 18	PENDING
Claim 19	PENDING
Claim 20	PENDING
Claim 21	PENDING
Claim 22	PENDING
Claim 23	PENDING
Claim 24	PENDING
Claim 25	PENDING
Claim 26	PENDING
Claim 27	PENDING
Claim 28	PENDING
Claim 29	PENDING
Claim 30	PENDING

Claim 31	PENDING
Claim 32	PENDING
Claim 33	PENDING
Claim 34	PENDING
Claim 35	PENDING
Claim 36	PENDING
Claim 37	PENDING
Claim 38	PENDING
Claim 39	PENDING
Claim 40	PENDING

SUPPORT FOR AMENDED CLAIMS 5, 15, 23 AND 33:

Claim 5: The phase comparator circuits 14 and 15 shown in the exemplary embodiments of Figs. 4, 7, 8 and 11; and waveform diagrams shown in Figs. 9E and 10E.

Claim 15: The phase comparator circuits 14 and 15 shown in the exemplary embodiments of Figs. 4, 7, 8 and 11; and waveform diagrams shown in Figs. 9E and 10E.

Claim 23: The phase comparator circuits 14 and 15 shown in the exemplary embodiments of Figs. 4, 7, 8 and 11; and waveform diagrams shown in Figs. 9E and 10E.

Claim 33: The phase comparator circuits 14 and 15 shown in the exemplary embodiments of Figs. 4, 7, 8 and 11; and waveform diagrams shown in Figs. 9E and 10E.

35 U.S.C. 251:

Claims 5-40 are rejected under 35 U.S.C. 251 as being broadened in a reissue application.

The Examiner asserts that a claim is broadened if it is broader in any one respect even though it may be narrower in other respects.

The present reissue application is a divisional of reissue application No. 09/899,104, filed July 6, 2001, which is a reissue application of U.S. Patent No. 5,920,530, which issued on July 6, 1999. Therefore, the parent reissue application was filed within two years (i.e., on July 6, 2001) of U.S. Patent No. 5,920,530.

MPEP § 1412.03 indicates that “if intent to broaden is indicated in a parent reissue application within the two years, a broadened claim can be presented in a continuing reissue application after the two year period.” Applicant notes that an intent to broaden was made in the parent reissue application No. 09/899,104 (now RE 38595). For example, new claim 8 was added in RE 38595. As discussed in the Reissue Declaration filed on July 6, 2001 in RE 38595, page 3, new claim 8 was similar to claim 1, except that claim 8 was broadened by the exclusion of particular details that were originally present in claim 1. Broadened claim 9 was also filed in RE 38595. Applicant therefore respectfully submits that an intent to broaden was found in the parent reissue application, such that a broadened claim may be properly set forth in the present reissue application, pursuant to MPEP § 1412.03.

DOUBLE PATENTING:

Claims 5-40 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. RE38,595.

To overcome the obviousness-type double patenting rejection, and as the path of least resistance, Applicant submits herewith a Terminal Disclaimer. The filing of a Terminal Disclaimer simply serves the statutory function of removing the rejection of double patenting and raises neither presumption nor estoppel on the merits of the rejection. It is submitted that obviation of the double patenting rejection by submission of a Terminal Disclaimer should not be construed as an admission or acquiescence or estoppel on the merits.

35 USC § 102:

Claims 5-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami (US 4,761,775) cited by Applicant.

Applicant respectfully submit that Murakami does not disclose each feature found in claims 5, 15, 23 and 33. For example, Murakami discloses an optical disk having prepits for synchronization which are produced at a timing of every 8 bits of the input data. In order to perform recording and reproduction onto and from the optical disk having the prepits, the recording/reproduction apparatus of Murakami extracts an interval of the synchronization prepits, and divides the extracted interval by 8, to produce a clock signal (shown in Fig. 5f) as a timing signal to determine a timing for emitting the recording/reading light beam. A PLL circuit 131 and a counter 132 are provided in the apparatus of Murakami to generate the clock signal. The synchronization prepits of Murakami's optical disk has a regular interval. At least one difference between exemplary embodiment of the present invention and the applied art is that Murakami does not disclose, teach or suggest that a monotonically increasing signal having a period equal to a frame synchronization period is generated by a counter and a clock signal is generated by sample-holding the monotonically increasing signal at an input timing of the prepit detection signal.

To expedite prosecution and further define the pending claims over Murakami, claims 5 and 15 are amended to recite "a phase comparator which generates a phase difference signal relative to the prerecorded data signal by a phase comparison with a reference signal that has an interval shorter than an interval of a synchronization signal included in the prerecorded data signal."

Similarly, claims 23 and 33 are amended to recite "generating a phase difference signal relative to the prerecorded data signal by a phase comparison with a reference signal that has an

interval shorter than an interval of a synchronization signal included in the prerecorded data signal.”

The phase comparator circuits 14 and 15 shown in the exemplary embodiment of Figs. 4, 7, 8 and 11 of the present application provide support for the features of amended claims 5, 15, 23 and 33. The phase difference of the present invention may be detected by sampling and holding the monotonously increasing signal shown in Figs. 9E and 10E having a regular interval equal to the sync frame interval at the timing of the prepit detection signal ST or SPP (SPPmmv). It is noted that the phase comparison or phase comparator according to the present invention may also function with a synchronization prepit signal having a regular (constant) interval like the prepit signal disclosed in Murakami.

In Murakami, a phase comparator 34 is provided that compares an output signal of a frequency divider 37 with a clock signal (shown in Fig. 5c) that indicates an interval of a synchronization prepit signal. A frequency divider performs a frequency division of the signal shown in Fig. 5d, which is a clock signal obtained by dividing the interval of the prepits by 9. This indicates that a phase comparison is performed between a clock signal obtained by frequency division of the signal shown in Fig. 5d and the clock signal having a prepit interval (having the same frequency). It is noted that the synchronization prepits of Murakami are inserted at a regular interval (i.e., the intervals between the prepits are the same). Thus, Murakami does not teach or suggest a phase comparator or phase comparison that is performed using a signal having an interval or period (e.g., signals shown in Figs. 9E and 10E) shorter than the intervals of the prepits.

Accordingly, Applicant respectfully submits that Murakami does not disclose each feature found in claims 5, 15, 23 and 33, such that the rejection under 35 U.S.C. § 102(b) should be withdrawn. The rejection of dependent claims 6-14, 16-22, 24-32 and 34-40 should likewise be withdrawn at least due to their respective dependences on claims 5, 15, 23 and 33.

Claims 6, 16, 24 and 34 were amended to change “a reference signal” to “the reference signal.” Claims 10, 20 and 38 were amended to change “said phase comparison output signal” to “a phase comparison output signal.” Also, “recording means” in claims 10 and 20 was changed to “recording device.” Support for these changes is found in the respective independent claims.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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